
Whole Class Discussions: **Four Corners**

MATHEMATICS

In this strategy, students individually consider an issue and move to an area in the room where they join others who share their ideas. The beauty of this strategy is that it is flexible and can be used for many topics, questions, and subject areas.

Purpose

- Allow students to make personal decisions on various issues; encourage critical thinking.
- Encourage an exchange of ideas in small groups.
- Facilitate whole-class discussion of these ideas.

Payoff

Students will:

- make up their own minds on an issue.
- speak freely in a relaxed environment.
- think creatively and critically.

Tips and Resources

- Encourage students to make up their own mind concerning the issue.
- Consider using more than four areas for response – even six responses can work well with various questions.
- Vary the approach by creating a value line. Ask students to rank themselves by lining up in a single line of a continuum, from strongly agree to strongly disagree. This will make student exchanges a necessity so that students can discover exactly where they fit on the line.
- This strategy would work well as a forum in which students could share a product they have created. In this case students would take their work to one of the corners to share, compare and discuss with other students. This is a very helpful option for students prior to handing work in to the teacher.
- **Opposite Sides** Variation:
 - This is used when there are only two responses. Divide the room in two and ask students to take one side, depending on their decision.
 - If the class is large, use smaller groups to allow all students a chance to speak. Arguments could be written on chart paper. After a specified time, the groups would share their arguments with the whole class.
- See Teacher Resource, *Opposite Sides - Examples*.
- See Teacher Resource, *Four Corners – Examples*.

Further Support

- The teacher may need to encourage some students and promote equal opportunity responses in groups.

Whole Class Discussions: Four Corners

MATHEMATICS

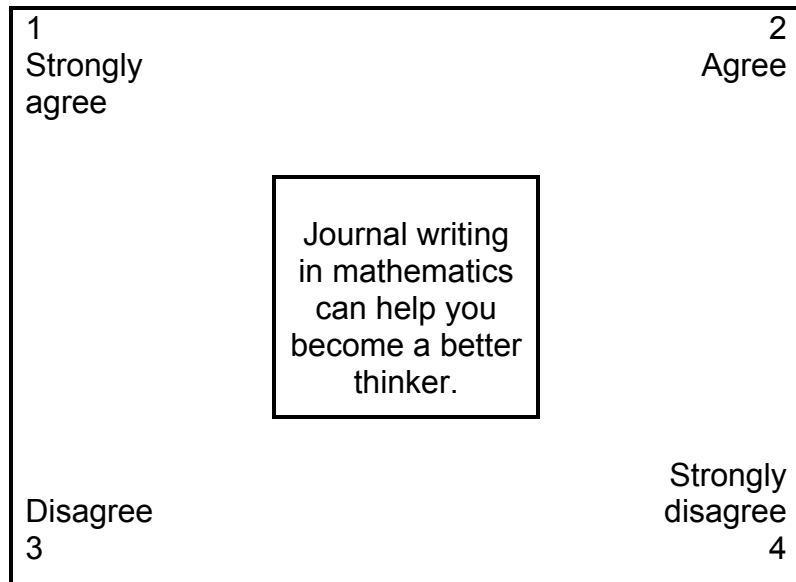
What teachers do	What students do
Before <ul style="list-style-type: none"> Create a statement or question for students to ponder that has the potential for varying degrees of agreement or preference. Organize the room into four areas (corners) and label with: strongly agree, agree, disagree or strongly disagree or with four descriptors/categories. Give students ample opportunity to think about the question and take a stance. Students need to be encouraged to make their own choices. A minute or two should be ample time; ensure that this time is spent quietly so that students make their own choices. 	<ul style="list-style-type: none"> Fully understand the question posed. Carefully ponder the question, making a personal decision as to the position they will take.
During <ul style="list-style-type: none"> Ask students to move to the corner that best represents their stance on the issue. Direct students to get into groups of three (if possible) to discuss the reasons for their choices. In cases where the groups are not large enough, pairs may be formed. In cases where only one student is in a group, the teacher could act as the other member of the pair. 	<ul style="list-style-type: none"> Move to the corner that best describes their personal views on the issue. Engage in an exchange of ideas with other members of their group, remaining open and communicative. Ensure that everyone is heard and that everyone in the group shares equally. Prepare to speak to the class about the group's discussion, noting common reasons and differing opinions.
After <ul style="list-style-type: none"> Call upon various groups to share information gathered in small-group discussions with the whole class. 	<ul style="list-style-type: none"> Highlight their group's main points with the class, pointing out commonalities and discrepancies. Ensure that each member of the group has something to share with the class.

Notes



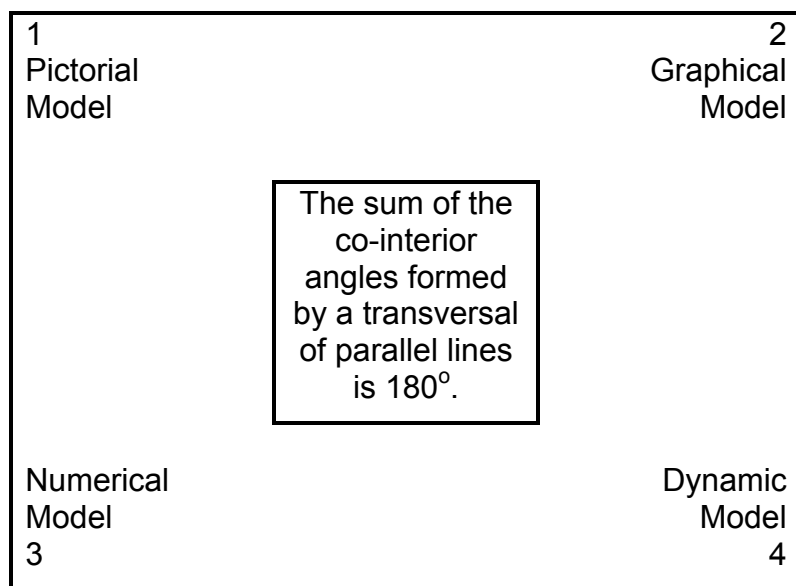
Four Corners - Examples

Example 1:



Example 2:

State a relationship that can be modeled in at least three of the different ways listed. Ask students to choose which model they would use and to be prepared to justify why their chosen model is the best choice. Consider directing students to create the model in which case technology or appropriate manipulatives should be placed in corner 4. Other models (e.g. algebraic) may be used instead of those listed below.



Whole Class Discussions: Four Corners Variation - Opposite Sides

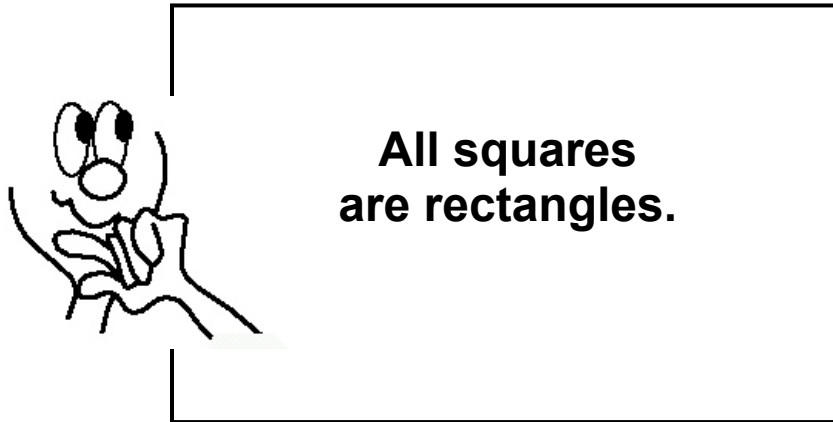
MATHEMATICS

What teachers do	What students do
Before <ul style="list-style-type: none"> Create a true/false statement or question for students to ponder. Choose a statement that requires critical thinking. Assign one side of the room as the “Agree” side, and the opposite side of the room as the “Disagree” side. Give students a minute or two of quiet time to individually think about the question and take a stance. A minute or two should be ample time; ensure that this time is spent quietly so that students make their own choices. 	<ul style="list-style-type: none"> Carefully ponder the statement, making a personal decision as to the position they will take. Respect other students’ quiet thinking time.
During <ul style="list-style-type: none"> Ask students to move to the side of the room that represents their stance on the question. Have some students to justify their choice of sides to the whole class. Allow students to change sides after another student’s explanation. However, when a student chooses to change sides, ask the student to give reasons for the change. Be prepared to contribute to the “debate” by asking “what if ..” questions. 	<ul style="list-style-type: none"> Move to the side of the room that describes their stance on the statement. Actively listen to students’ justifications. Be prepared to justify your own choice. If sufficiently swayed by a justification from the other side, be prepared to justify your move to that side of the room.
After <ul style="list-style-type: none"> Debrief the activity by leading a discussion to summarize the justifications and clarify concepts in order to dispel misconceptions. 	<ul style="list-style-type: none"> Participate in summarizing the justifications.

Notes

**Whole Class Discussions: Opposite Sides**

“Agree” Side



“Disagree” Side

	Sample Statements	Grade		
		7	8	9
1.	All squares are rectangles.	√	√	√
2.	Data can be displayed in any kind of graph you choose.	√	√	√
3.	The product of two numbers is always greater than either of the two numbers.	√	√	√
4.	All structures built with 27 interlocking cubes will have the same volume and the same surface area.	√	√	√
5.	When two different fractions each have a numerator that is one less than the denominator, then the fraction with the larger denominator is bigger.	√	√	
6.	1 is the same as 100%.	√	√	
7.	Two negatives make a positive.		√	√
8.	The largest area that can be enclosed by a rope of any length is a square.	√	√	√
9.	The distance around a can of 3 tennis balls is less than the height of the can.		√	√
10.	The only way you can tell if a relationship is linear is to graph it.			√